



United States Department of the Interior

NATIONAL PARK SERVICE

P.O. BOX 37127

WASHINGTON, D.C. 20013-7127

IN REPLY REFER TO:

A5623(610)

October 9, 1987

Special Directive 87 - 4

Annual Review

To: Directorate, Field Directorate, Washington Office (WASO)
Division Chiefs, and All Superintendents

From: ^{Acting} Director

Subject: Dams and Appurtenant Works - Desk Reference Manual for Maintenance, Operation, and Safety

This Directive replaces and updates Staff Directive 86-2 of the same subject. It provides a brief explanation of the National Park Service (NPS) Maintenance, Operation, and Safety of Dams (MOSD) program responsibilities.

Complete management responsibilities are outlined in more detail in NPS-40, Dams and Appurtenant Works, Chapter 2. The key action responsibilities are as follows:

- ° Prepare, review, and update annually Emergency Action Plans (EAP's) for any NPS dams that are classified as Downstream HIGH or SIGNIFICANT Hazard Potential. Use NPS-40, Chapter 2, Section B, paragraph 6 and Chapter 6, Section D.
- ° Prepare, review, and update annually Emergency Action Plans for park areas that are affected by non-NPS dams. Information about contacting State dam safety officials regarding private dams that affect park areas is provided in NPS-40, Appendix F and attachment 2 of this Directive.
- ° Prepare or obtain official inspection reports for all NPS and non-NPS dams and incorporate findings into the Inventory of Dams. Use NPS-40, Chapter 6, Section C and Dam Inventory Users Guide, Revised February 1985.
- ° Promptly perform corrective action on deficient dams. Dams listed as SERIOUSLY DEFICIENT should be corrected immediately. A dam is SERIOUSLY DEFICIENT if an official inspection report classifies the safety condition as POOR or UNSATISFACTORY or the maintenance condition as 3, 4, or 5. Use the current Inventory of Dams and NPS-40, Chapter 3, Section C and Chapter 6, Section C, paragraph 4.
- ° Maintain accurately the NPS Inventory of Dams for any size, type, or owner (NPS or non-NPS) of dams that affect park resources, safety, maintenance, or operations. Dams that are proposed, existing, or deactivated and either within, adjacent to, or upstream of park areas will be included. Use NPS-40, Chapter 2, Section C and Dams Inventory Users Guide, revised February 1985.

- Dams and appurtenant works including adjacent areas out to 15 feet will be kept free of any woody vegetation, trees, roots, bushes, debris, or any other material which interferes with the access, visibility, inspection, operation, or maintenance of the facility. Grass will be mowed at prescribed intervals, particularly before inspections. Complete inspections cannot be performed when access or visibility is impaired by vegetation or debris. Spillways and other water control devices should be kept clear of obstructions and debris and seepage monitored on a regular basis. Use NPS-40, Chapter 6, Section B and the Operations and Maintenance Guidelines for Small Dams.
- Maintain operations and maintenance logs for NPS dams. Use NPS-40, Chapter 6, Section B and the Operations and Maintenance Guidelines for Small Dams, page 13 and Appendix B.
- Retain only essential dams. Dams, appurtenant works, and impoundments unauthorized by legislation or not approved in a General Management Plan should be deactivated, particularly if they are deficient. Deficient dams should not be acquired. Use NPS-40, Chapter 1, Section C and Chapter 3.

A list of official guidelines, an example letter for initiating contact with a non-NPS dam owner, and a list of NPS and Bureau of Reclamation engineers for special assistance, particularly during emergencies, are provided in attachments 1, 2, and 3 respectively.

For additional information, contact your Regional Dams Coordinator or Mr. Charles Karpowicz, NPS Dams Officer, at 202-565-1249 if you have any questions.



Attachments (3)

cc: Commissioner, Bureau of Reclamation

**List of Official Guidelines and Manuals for the National Park Service (NPS)
Maintenance, Operation, and Safety of Dams (MOSD) Program**

<u>Title of Guideline or Manual</u>	<u>NPS ID</u>	<u>Release Date and Distribution</u>	<u>Description</u>
Dams and Appurtenant Works, National Park Service, Engineering and Safety Services Division, Washington, D.C., February 1983	NPS-40 Guideline	June 1983, Servicewide	NPS management guideline for all NPS and non-NPS dams that affect the National Park System and Related Areas.

Technical Supplements to NPS-40 Management Guideline

OPERATIONS AND MAINTENANCE

Operation and Maintenance Guidelines
For Small Dams, Bureau of Reclamation,
Dam Safety Office, Denver, Colorado,
December 1982

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WASO A7615(610)
memo, June 12, 1992,
Regionwide

Reference NPS-40, Chapter 6.
Maintenance and operational
guidelines for all NPS and non-NPS
dams that affect the National Park
System and Related Areas.

STATE COORDINATORS

Dam Safety, Know the Potential Danger
Federal Emergency Management Agency (FEMA),
Earthquakes and Natural Hazards Program
Division, Washington, DC 20472, May 1987

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FEMA Letter dated
August 1988,
Servicewide

Reference NPS-40, Appendix F.
May 1987 listing of State Dam Safety
Officers and Emergency Management
Officers.

EMERGENCY ACTION PLANS

Flood Plain Management - Availability
of Guidelines on Community Local
Flood Warning and Response System,
National Park Service, Engineering
and Safety Service Division,
Washington, D.C., February 10, 1986

NPS
Staff
Directive
86-1

February 10, 1986,
Servicewide

Reference NPS-40, Chapter 6, Section D.
Early warning and response system for
flooding, flash floods, and dam
failures.

EMERGENCY ACTION PLANS

Flood Warning and Preparedness Plans,
Hydrology Subcommittee of the Federal
Interagency Committee on Water Data,
Washington, DC, January 1990

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WASO A7615(610)
memo, May 17, 1990,
Servicewide

Reference NPS-40, Chapter 6, Section D.
Early warning and response system for
flooding, flash floods, and dam
failures.

**List of Official Guidelines and Manuals for the National Park Service (NPS)
Maintenance, Operation, and Safety of Dams (MOSD) Program, continued**

<u>Title of Guideline or Manual</u>	<u>NPS ID</u>	<u>Release Date and Distribution</u>	<u>Description</u>
INVENTORYING <u>NPS Dams Inventory User Guide, National Park Service, Engineering and Safety Services Division, Washington, D.C., December 1992 (Revised)</u>	-	WASO A7615(610) memorandum for 1993 Annual Dams Report Call, Servicewide	Reference NPS-40, Chapter 2, Section C. A users guide for <u>NPS Dams and Related Flood Plain Inventory Report</u> printouts.
HAZARD POTENTIAL <u>Downstream Hazard Classification Guidelines, ACER Technical Memorandum No. 11, Bureau of Reclamation, Assistant Commissioner, Denver, Colorado, 1988 (Revised)</u>	-	WASO A7615(610) memo, June 12, 1992, Regionwide	Reference NPS-40, Chapter 1, Section D, 3. Guideline for determining downstream hazard (risk) potential classification at and downstream of dam - not a classification of maintenance, structural, or public safety condition.
STRUCTURAL AND MAINTENANCE EXAMINATION <u>Safety Evaluation of Existing Dams, Bureau of Reclamation, Dam Safety Division, Denver, Colorado, 1983 (Revised)</u>	-	WASO A7615(610) memo, June 12, 1992, Regionwide	Reference NPS-40, Chapter 6, Section C, 2, a. Manual for examining earth and concrete dams. Enlarged examination checklists provided in notebook for field office use.
PUBLIC SAFETY EXAMINATION <u>Public Safety Around Dams and Reservoirs, Interim Working Guideline, Dam Safety Inspection Section, Bureau of Reclamation, Denver, Colorado, June 1992</u>	-	WASO A7615(610), memo, June 12, 1992, Regionwide	Reference NPS-40, Chapter 6, Section B Manual for examining public safety around dams and reservoirs.
FINANCE <u>Financial Work Sheet, SMOD Form 1</u>	-	WASO A7615(610) memo June 12, 1992, Regionwide	Reference NPS-40, Chapter 2, Section E. Example financial work sheet for formulating budgets and tracking expenses in the management or monitoring of all dams.

Attachment 2, Example Letter
Example Letter To Non-NPS Dam Owner or Regulatory Agency (Preferably)

Certified Mail, Receipt Requested

South Lakes, Inc.

Attention: Ms. Francis Doe, Chief of Engineering Division

176 Water Street

Riverton, Texas 99999

Subject: Back River Dam

Dear Madam:

As discussed during our telephone conversation on July 15, 1982, certain information about your dam which affects Waterway National Park is needed.

You can well understand our need for this information so that appropriate steps can be taken to assure that park visitors and resources are protected in those areas for which we have warning, rescue, and evacuation responsibilities in the event of spillway releases, possible dam failure, or accidents at the dam or reservoir.

Please place this park on your mailing list to receive periodically and by certified mail the following items:

1. A copy of your most current formal safety of dams inspection report, and if the dam has any serious deficiencies, an explanation of how and when corrective action will be performed. Please review and revise the attached NPS Inventory of Dams Report listing for your dam based upon this report. To be able to assign a safety of dams condition code [data element 27], this report will need to include a recent stability analysis including the use of criteria for the Maximum Probable Flood (MPF) and Maximum Credible Earthquake (MCE). If the project is proposed for construction or reconstruction, the National Park Service would appreciate the opportunity to review and comment on your design and construction documents.
2. Permission granting NPS observer status during your next formal safety of dams inspection.
3. Incorporation of the park into and a copy of your Emergency Action Plan (EAP). This EAP has early warning, flood mapping, and evacuation procedures and is given to those jurisdictions who would be affected by spillway releases, possible dam failure, misoperation, or even an accident at the dam or reservoir. Your Notification Directory or Call-up List should state that the park is immediately affected and contacted directly by the dam operator/tender. Based upon these documents the park will prepare its own EAP for those areas which it has warning, rescue, and evacuation responsibility. The NPS prepared EAP is part of the park's Emergency Operations Plan. This responsibility is described in the U.S. Department of the Interior, National Park Service management guideline, NPS-40, Dams and Appurtenant Works..., Chapter 6, Section D, and is in accordance with the Federal Guidelines For Dam Safety, pages 10 and 36.

If you have any questions or comments about this request, please contact (Park Official) at commercial telephone 999-999-9999.

Sincerely,

Regional Director/Superintendent

cc: WASO Engineering and Safety Services Division, Code 610

Example Letter
Attachment 2

LIST OF CONTACTS AND COORDINATORS FOR THE NATIONAL PARK SERVICE (NPS) MAINTENANCE, OPERATION, AND SAFETY OF DAMS PROGRAM

12/13/99, D:\document\damsr13.99

BUREAU OF RECLAMATION CONTACTS

Name	Mailing Address	Telephones (O) Office (H) Home
Coordinator for Overall NPS Assistance Civil Engineer, Betty Dinneen Alternate: Tom Luebke	Bureau of Reclamation Technical Service Center Attention: Client Business Svcs, D-8010 P.O. Box 25007 Bldg. 67, Denver Federal Center Denver, Colorado 80225-0007	(O) 303-445-3029 (O) 303-445-2594
Coordinator for Technical Advice for Dam Safety, Civil Engineer, Chuck Hennig 1/ Alternate: Dave Eubank 2/	Dam Safety Office, code D-6600	(O) 303-445-2771*1/ fax 303-445-6463 (O) 303-445-2769*2/ (H) 303-988-4557 1/
Coordinator for Examinations, Civil Engineer, Leon Faris Alternate: Civil Engineer, Chris Veesaert	Inspections and Emergency Mgmt. Group D-8470	(O) 303-445-2747 (O) 303-445-2742* fax 303-445-6381

* Work hours vary; however, one of these individuals will be available from 7:00 a.m. to 4:00 p.m.(Rocky Mountain Time), Monday through Friday.

NATIONAL PARK SERVICE WASHINGTON AND FIELD OFFICE COORDINATORS

NPS Dams Program Officer, Charles Karpowicz 1/ Alternate: Mark Hartsoe 2/	National Park Service Park Facility Management Division, Org. Code 2420 1849 C Street, N.W. room MIB 7252 Washington, D.C. 20240	(O) 202-565-1249 1/ (O) 202-565-1244 (H) 703-493-8050 1/ (O) 202-565-1244 2/
Civil Engineer, Bill Heubner 1/ Alternate: Supervisory General Engineer Bruce Sherwood 2/	Alaska SO (Support Office) Alaska Region Planning, Design and Maintenance Division 2525 Gamble Street, Room 107 Anchorage, Alaska 99503-2892	(O) 907-257-2675 1/ (H) 907-257-2878 2/
Chief Ranger, Robert Gray Alternate: Park Manager, Pam Underhill	National Park Service Appalachian National Scenic Trail Park Office C/O NPS Harpers Ferry Center Harpers Ferry, West Virginia 25425	(O) 304-535-6278 (H) 304-258-5637 fax 304-535-6270
Civil Engineer: Phil Ayers 1/ Alternate: Roger Maxwell, 2/ Tim Windle 3/	Denver SO Intermountain Region Facility Management, Design, and Engineering Branch 12795 West Alameda Parkway P.O. Box 25287 Denver, Colorado 80225-0287	(O) 303-969-2606 1/ (H) 303-215-0979 1/ (O) 303-969-2859 2/ (O) 303-969-2628 3/
Civil Engineer, Joe Bruno 1/ Alternate: Program Leader, Maintenance, Design, and Engineering, Richard Niemyer 2/ Alternate: Civil Engineer, Allen Bengtson	Southwest SO Intermountain Region Maintenance, Design, and Engineering Office P.O. Box 728 Santa Fe, New Mexico 87504-0728	(O) 505-988-6036 1/ (H) 505-471-0332 1/ (O) 505-988-6035 2/
Environmental Engineer, Dick Fisher 1/ Alternate: Civil Engineer, Wayne Vander Tuin 2/	Midwest SO Midwest Region Maintenance and Engineering 1709 Jackson Street Omaha, Nebraska 68102-2571	(O) 402-221-3945 1/ (H) 402-333-2419 1/ (O) 402-221-3491 2/ fax 402-221-3465

NATIONAL PARK SERVICE WASHINGTON AND FIELD OFFICE COORDINATORS, continued

Name	Mailing Address	Telephones
Civil Engineer, Stan Tolman <u>1/</u> Alternate-1: Don Filsoof <u>2/</u> Alternate-2: Dave Hammers <u>3/</u>	National Capital SO National Capital Region Maintenance and Design Room 358 1100 Ohio Drive, S.W. Washington, D.C. 20242	(O) Office (H) Home (O) 202-523-1148 <u>1/</u> (O) 202-619-7060 <u>2/</u> (O) 202-619-7270 <u>3/</u>
Civil Engineer, Mark Spadea Alternate: Facility Manager, Ross Flanagan	Philadelphia SO Northeast Region Maintenance, Design, and Engineering U.S. Custom House, Room 306 200 Chestnut Street Philadelphia, Pennsylvania 19106	(O) 215-597-0043
Civil Engineer, David Price <u>1/</u> Alternate: Fred Bentley <u>2/</u>	Boston SO Northeast Region Engineering and Facility Management 15 State Street Boston, Massachusetts 02109-3572	(O) 617-223-5096 <u>1/</u> fax 617-223-5260 <u>1/</u> (H) 508-896-9645 <u>1/</u> (O) 617-223-5296 <u>2/</u>
Environmental Engineer, Noby Ikeda, <u>1/</u> Alternate: Facility Management Chief, Jack Williams, <u>2/</u>	Pacific Great Basin SO Pacific West Region Facility Management 600 Harrison Street, Suite 600 San Francisco, CA 94107-1372	(O) 415-427-1377 <u>1/</u> (H) 415-898-1402 <u>1/</u> (O) 415-427-1384 <u>2/</u>
Civil Engineer, Richard Engle <u>1/</u> Alternate: Jeoff Swan <u>2/</u>	Columbia Cascade SO Pacific West Region Design and Engineering 909 First Avenue Seattle, Washington 98104-1060	(O) 206-220-4274 <u>1/</u> (O) 206-220-4275 <u>2/</u> (H) 206-842-6153 <u>1/</u>
Civil Engineer, Simon Tran-M-Trung) <u>1/</u> Alternate-1: Dan Cockrum <u>2/</u> Alternate-2: Leon Folsom <u>3/</u>	Southeast SO Southeast Region Education and Visitor Services Maintenance and Engineering Division 100 Alabama Street, S.W. Atlanta, Georgia 30303	(O) 404-562-3108 <u>1/</u> fax 404-562-3257 <u>1/</u> (O) 404-562-3124 <u>2/</u> (O) 404-562-3124 <u>3/</u>

NATIONAL PARK SERVICE DENVER SERVICE CENTER

Geotechnical Engineer, Mike Casias <u>1/</u> Alternate: Chief, Engineering Services, Terry Wong, <u>2/</u>	National Park Service Denver Service Center Engineering Services, DSC-EN 12795 West Alameda Parkway P.O. Box 25287 Denver, Colorado 80225-0287	(O) 303-969-2302 <u>1/</u> (O) 303-969-2140 <u>2/</u> fax 303-969-2930
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LIST OF COORDINATORS AND CONTACTS FOR THE NATIONAL PARK SERVICE (NPS) MAINTENANCE, OPERATION, AND
SAFETY OF DAMS PROGRAM, continued

OTHER CONTACTS

Name	Mailing Address	Telephones
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FEDERAL HIGHWAY ADMINISTRATION

Program Manager, Arthur E. Hamilton	Federal Lands Highway Program Federal Highway Administration, Room 4136 400 7th Street, S.W. Washington, D.C. 20590	(O) 202-366-9494
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FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)

Chairman, Federal Interagency Committee on Dam Safety, Bud Andress 1/ Alternate: Rita Henry 2/	National Dam Safety Program, MT-NDSP Mitigation Directorate Federal Emergency Management Agency, FEMA 500 C Street, S.W. Washington, DC 20472	(O) 202-646-2801 1/ (O) 202-646-2704 2/
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ASSOCIATION OF STATE DAM SAFETY OFFICIALS (ASDSO)

Executive Director, Lori Spragens Conference Coordinator, Susan Sorrell Administrative Assistant, Carrie Wright	Association of State Dam Safety Officials 450 Old Vine Street, Second Floor Lexington, KY 40507	(O) 606-257-5140 fax 606-323-1958
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